

EAST FORK CAVE CREEK BASIN #3
FCD GAGE ID# 4683

STATION DESCRIPTION

LOCATION – The gage is located near the southeast corner of Grovers Avenue and 20th Street in Grovers Park. The gage is on the lower basin, basin 3b. The upper basin, 3a, is located to the northeast, on the north side of Grovers Avenue. The gage instrumentation is located at the outlet from the basin. Latitude N33° 38' 44", Longitude W 112° 02' 24". Located in the NW1/4 NW1/4 SE1/4 S34 T4N R3E in the Union Hills 7.5-minute quadrangle.

ESTABLISHMENT – The gage was installed on September 13, 1994.

DRAINAGE AREA – 3.52 mi², of which 1.86 mi² is controlled by basins #1 and #4.

GAGE – The gage is a pressure transducer type instrument, located at 0.15 feet gage height, or 1,417.15 feet M.S.L., levels of November 15, 1994.

There are no staff gages at this location.

There are no crest gages at this location.

ZERO GAGE HEIGHT - Zero is defined as the invert of the inlet, elevation 1,417.00 feet M.S.L.

HISTORY – No history prior to gage establishment. Gage was established on September 13, 1994.

REFERENCE MARKS –

RP1 is a white paint spot on top of outlet. Elevation 5.47 feet gage height, levels of November 15, 1994. It has not been checked recently, so it can be assumed that the paint spot has worn off and is no longer visible.

CHANNEL AND CONTROL – The primary outlet for this basin is a 48-inch diameter RCP. The culvert length is unknown since the pipe joins the city storm drain system. The auxiliary spillway for the basin is the top sides.

PRIMARY / AUXILIARY OUTLET –

There is one primary outlet which is a 48-inch culvert. The 48-inch diameter RCP has an inlet elevation of 0.00 feet gage height.

The auxiliary 'spillway' is the over spill out of the basin. The crest elevation of the 'spillway' is 14.6 feet gage height, levels of November 15, 1994, or 1,431.6 feet M.S.L.

Top of basin information is 15.0 feet gage height, or 1,432.0 feet M.S.L.

RATING – The current rating is Rating #2. The primary culvert is rated from the design. The spillway was rated using the weir equation and was developed by T. W. Lehman. Rating #1 was the same as Rating #2 without the spillway rating. Complex hydraulics for the channel affects the capacity rating. The capacity is based on both basins 3a and 3b simultaneously.

The current capacity rating is Rating #1 which is from the design.

DISCHARGE MEASUREMENTS – Discharge measurements are not possible.

POINT OF ZERO FLOW – The PZF is the inlet invert at 0.00 feet gage height, levels of November 15, 1994.

FLOODS / SIGNIFICANT IMPOUNDMENTS – An event occurred on September 9, 2006 at 4.22 feet and 57 acre-feet.

REGULATION – Natural flows in the wash are impeded by the basin.

DIVERSIONS – None known

ACCURACY – Fair

JUSTIFICATION – Monitor levels in basin.

UPDATE – August 16, 2011
D E Gardner